

## Liverpool John Moores University

Title: Programming  
Status: Definitive  
Code: **3206FNDET** (127955)  
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics  
Teaching School/Faculty: Computer Science and Mathematics

| Team          | Leader |
|---------------|--------|
| Andrew Symons | Y      |
| Kirsty Lever  |        |

**Academic Level:** FHEQ3      **Credit Value:** 10      **Total Delivered Hours:** 33  
**Total Learning Hours:** 100      **Private Study:** 67

### Delivery Options

Course typically offered: Semester 2

| Component | Contact Hours |
|-----------|---------------|
| Lecture   | 22            |
| Practical | 11            |

**Grading Basis:** 40 %

### Assessment Details

| Category  | Short Description | Description       | Weighting (%) | Exam Duration |
|-----------|-------------------|-------------------|---------------|---------------|
| Portfolio | AS1               | Programming Tasks | 100           |               |

### Aims

- To introduce the student to the software development process.
- To become conversant with a range of computer programming environment and their applications.
- To develop problem solving skills in computing and wider engineering or technology areas.

## Learning Outcomes

After completing the module the student should be able to:

- 1 Apply knowledge of programming constructs and basic algorithms.
- 2 Demonstrate problem solving skills by producing simple programming solutions.
- 3 Evaluate alternatives and make sound judgements regarding programming solutions.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

|                   |   |   |   |
|-------------------|---|---|---|
| Programming Tasks | 1 | 2 | 3 |
|-------------------|---|---|---|

## Outline Syllabus

*Programming Overview & History*  
*The Language & IDE*  
*Basic Elements*  
*Procedural Programming*  
*Setting up a programming environment*  
*Scripting Fundamentals*  
*Producing a script*  
*Formatting a script*  
*Variables*  
*Data types*  
*Input to scripts*  
*Programming arithmetic*  
*Mathematical operators*  
*Division, floors and truncation*  
*Program Control Selection Statements*  
*Loop Constructs*

## Learning Activities

Student-focused learning activities based on a combination of lectures and classroom activities with practical, experiential learning in laboratories designed to reinforce and increase the student learning experience.

## Notes

This module introduces the student to the fundamental concepts of programming and their practical application.